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Center for Urban and Regional Affairs

REPORT TO LAND STEWARDSHIP PROJECT

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EFFECTS OF FARM FORECLOSURE ON SOIL CONSERVATION PRACTICES IN FOUR MINNESOTA COUNTIES

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INTRODUCTION

Many farms have been foreclosed by institutional lenders in the last decade, prompting concern by the farm community, politicians and economists that the look of the agricultural landscape is changing dramatically. It is argued that the traditional family farm is threatened, as more farmland is foreclosed by institutional mortgage holders and consequently rented out. Soil conservation may be of less concern to a farm tenant than an owner-operator, particularly if management emphasis shifts to intensive crop production for maximum profit. The result is a greater possibility for increased soil erosion.

OBJECTIVES, SCOPE AND METHODOLOGY

This report documents the results of a limited review of farm foreclosure files in four Minnesota counties: Goodhue, Fillmore, Mower and Olmsted. These four adjacent counties in southeast Minnesota were selected for study because they experience the same climate influences and are similarly affected by sheet and rill erosion. They have all experienced relatively high numbers of foreclosure since 1985.

The intent of this study is to determine whether soil conservation and cropping practices are significantly different following foreclosure and the assumed change in status of the operator. The real and potential loss of soil resulting from these changes is examined and recommendations are made for further research into the issue of land stewardship.

Foreclosures by insurance companies and Federal Land Bank (FLB) were targeted for study as they greatly outnumber foreclosures by other lending

institutions in the four review counties. Of a total of 34,500 farmland acres foreclosed by insurance companies and Federal Land Bank in these counties up to December 1986, sixty-three farm properties were identified for this study and fifty-one of these were reviewed, including thirty-one farms foreclosed by insurance companies and twenty farms foreclosed by Federal Land Bank (see Tables 1 and 2).

Table 1. FORECLOSED ACREAGES BY COUNTY (1986 YEAR)

County	Total Acreage[a] in Farmland	Total Acreage[b] Foreclosed by Insurance Companies	Total Acreage[c] Foreclosed by Fed. Land Bank
Goodhue	449,500	2,300	3,500
Fillmore	542,600	3,900	7,300
Mower	446,600	3,200	7,900
Olmsted	382,200	1,100	5,300
Totals	1,820,900	10,500	24,000

[a]Acreage in farmland as recorded by U.S. Census of Agriculture, 1982 (for 1981 year).

[b]Acreage as recorded in county courthouses, 1986 year.

[c]Acreage as reported by corporations to State of Minnesota, Family Farm Security Office, 1986 year.

Table 2. FARMS REVIEWED BY COUNTY[a]

County	Number of[b] Review Farms	Total Farms Foreclosed by Insurance Companies	Total Farms Foreclosed by Fed. Land Bank
Goodhue	13	6	7
Fillmore	16	9	7
Mower	14	10	4
Olmsted	8	6	2
Totals	51	31	20

[a]Appendix A contains a detailed list of the review farms.

[b]Fifty-one farms were reviewed in this study, of a possible sixty-three farms initially identified for review. The remaining twelve farm files were inaccessible either because of transfer to another county or because the farms are no longer in federal crop programs.

Cumulative data on crop rotation and farm management practices were available at county offices of the U.S. Agricultural Stabilization and Conservation Service (ASCS). The ASCS crop program records (consisting of air photos, 35mm slides and annual crop verification records for participating farms) allowed identification and analysis of farm histories before and following foreclosure. To investigate specific changes in soil loss and conservation practices on the review farms the following procedure was undertaken:

Pre-visit to County ASCS Office

1. Property boundaries of selected farms were traced from county plat book maps on to county soil survey maps which were provided by the U.S. Soil Conservation Service (SCS).

During Visit to ASCS Office

2. An analysis sheet was drawn up for each property documenting the name of current owner and operator; date of management change; history of ownership; and changes in farm size, cropping pattern and general land use post-foreclosure.

3. The Universal Soil Loss Equation, or USLE (A=RKLSCP), was calculated for each field where noticeable change had occurred in the cropping pattern, as evidenced by examination of ASCS crop verification files (annual crop reports and air photos for cropped fields) and 35mm slides of the acreages. For the average annual soil loss (A), the R (rain and runoff), K (soil erodibility) and LS (slope length and steepness) factors were determined from SCS calculations for specific soil types.

   The C and P factors were estimated based on SCS calculation tables for average values of (C) (i.e., crop sequences and tillage systems); and support practices (P), (i.e. contour tillage, contour stripcropping and terraces). Specific values for field crop rotation and tillage were applied when clearly evident from the air photos and crop reports in the ASCS files.

   The USLE is calculated for affected fields on seven farms (see Appendix B).

Post-visit

4. A summary of the results of the field data gathering was prepared.

DATA LIMITATIONS

As stated earlier, the methodology used to identify foreclosed farms in the four designated counties was based on foreclosure data as recorded in county courthouse files and as registered with Minnesota Family Farm Security Office for the 1986 year.

Discrepancies exist amongst the various public agencies which administer to foreclosed real estate. This possibly reflects the fact of different reporting and publishing deadlines for this information. In this study, county courthouse records were judged to be the most complete data source.

Review farms were further selected based on federal crop program data held by ASCS for participant farms. Of the sixty-three farms identified for the study, fifty-one met the full criteria of:

1. foreclosed not later than December 1986;
2. foreclosed by an insurance company or Federal Land Bank; and
3. participating in ASCS crop programs for a continuous period of at least five years, including year of foreclosure.

Twelve of the sixty-three farms did not meet the criteria. Of the fifty-one review farms, twenty were FLB foreclosures and thirty-one were foreclosed by insurance companies.

Many farms which otherwise met the full criteria were difficult to track through crop program records. That they had been split off and reconstituted amongst new owners reflects the typical instability of many farm foreclosure situations. So the study was limited to parcels with complete records in ASCS files.

SUMMARY ANALYSIS

Certain patterns emerged from the research. Analysis shows that:

1. Cropping patterns were generally continued in the same crop sequence/ tillage system following foreclosure as previously. Only seven of the fifty-one review farms (14 percent) showed any dramatic change in cropping practice from the year prior to the year after foreclosure. These were tested for soil loss using USLE (See Appendix B). The finding suggests that not enough time has lapsed since foreclosure to reasonably document changes, a distinct possibility since most of the review farms were foreclosed recently, in 1986. Alternately, or as well, there has been no pressure from the new owner to change existing practices.
2. In four of the seven instances where intensified row-cropping for cash crops was evident in the year following foreclosure, fields had been previously planted by strip contour with a crop rotation of hay, small grains and corn or beans. ULSE calculations typically indicated a resulting increase in soil loss with the intensification of single cash crop planting as in the examples mentioned. However, the soils of the review fields, in the main, are not highly erodible according to SCS standards, which suggests greater tolerance to intensive cropping. In every instance the annual loss of soil per acre prior to foreclosure was already in excess of the tolerable limit for the field soil type. The fact of intensified row cropping may well have served to accentuate an existing management problem.
3. While soil loss remains an important indicator of changes in soil conservation measures, the research findings suggest that further specific information on land management and ownership patterns is essential to accurately document the effect of change in ownership on stewardship

practices. To this end, some investigative analysis was initiated with this research regarding ownership patterns for the review farms.

As of December 1986:

4. Total farm acreages foreclosed by insurance companies numbered 10,500 acres in the four review counties. This represents 2.7 percent of all foreclosed farm acreages in Minnesota and .5 percent of all farm acreages in the four counties (see Table 1).

5. Total acreages foreclosed by Federal Land Bank numbered 24,000 acres in the four review counties. This represents 6.3 percent of all foreclosed farm acreages in Minnesota and 1.3 percent of all farm acreages in the four counties (see Table 1).

6. As Tables 3 and 4 indicate, institutionally-held farmland on the whole was rented or sold back in parcels to the former owner or area farmers.

7. Twenty (39 percent) of the farms changed operators following foreclosure. Thirty-one (61 percent) were rented back to the foreclosed owner/operator. Example cases are described in Table 3.

8. Seven (14 percent) were sold back to area (same county) resident individuals. Example cases are described in Table 4.

Table 3. OPERATORS ON FARMS FOLLOWING FORECLOSURE

County	Number of Review Farms	Same Operator	New Operator
Goodhue	13	6	7
Fillmore	16	12 (5)[a]	4
Mower	14	8 (2)[a]	6
Olmsted	8	5	3
Totals	51	31	20

[a] (Number) of owner-operators who bought back their farms before December 1986.

The following examples describe the typical owner/operator transactions following foreclosure:

- One Olmsted County farmer has remained on his foreclosed farm as tenant to John Hancock Insurance since it was foreclosed in 1984. Another long-time farmer in Fillmore County lost his 158-acre farm to Mutual in 1983, but continues to rent this parcel as well as other parcels in Spring Valley Township. He is listed as the owner-operator for the 1987 year in ASCS files and may have bought the foreclosed portion back.

- When possible, the former owner-operator will buy back the foreclosed parcel. One operator has recently bought back the ninety-four acres in Fillmore County he had been alternately working with another farmer since foreclosure by Federal Land Bank in 1985.

- Others lost only a portion of their holdings in foreclosure and continue to operate large-scale acreages in the county.

Typically, the former owner-operator will continue to farm equivalent or increased acreage in the area, as these examples illustrate.

Table 4. OWNERS OF REVIEW FARMS ONE YEAR FOLLOWING FORECLOSURE

County	Number of Review Farm Foreclosures	Number of Review Farms Sold Back to Area Individuals
Goodhue	13	-
Fillmore	16	2
Mower	14	5
Olmsted	8	-
Totals	51	7

Examples of selling-back transactions:

- One Mower County farmer has bought back the 440 acres foreclosed on by Connecticut General in 1985. The same crop rotation has been maintained, in this instance a corn/bean rotation with some acreage in hay and set-aside.

- Another Mower County farmer was forced to reduce his holdings, partly via foreclosure in 1985 (485 acres to Connecticut General) but an improved economy since then has allowed him to buy back the foreclosed parcel. His combined rented and owned farmland once again approaches his total acreage prior to foreclosure.

- Another foreclosure property (230 acres foreclosed by Federal Land Bank, 1984), also in Mower County, is privately owned again, having been sold back to an area farmer in 1985 and resold to another in 1986.

- In contrast to the situation of small operators whose entire holdings were foreclosed on, one area farmer in Fillmore County owns other farmland as well as the 120-acre parcel which was foreclosed on by John Hancock in 1986. He has bought back that parcel and continues to operate over 700 acres. A crop rotation of corn/oats/set-aside has been maintained.

CONCLUSIONS AND RECOMMENDATIONS

1. Nearly all foreclosed individuals (with three exceptions) continued to operate farms in the area, with either the same or increased acreage base. Most individuals maintained operations averaging 250 acres. Others were already large operators and, following foreclosure, increased their overall operations to larger scale (1,000+ acres) operations. This suggests that those individuals who were foreclosed on have a commitment to stay on the land and continue to farm, regardless of whether they own or rent an operation.

2. County assessors' offices indicate more farms have been sold back since December 1986. ASCS officials and county courthouse officials concur that increased numbers of foreclosed farm properties were being sold back in 1987 and early 1988, in part because of an improved market value for farmland. Officials also suggest that more individual operators experienced a profitable crop year in 1987, better enabling them to buy back their foreclosed farms.

3. In the majority of cases in this study, the same level of conservation measures, or lack thereof, was maintained following foreclosure. This suggests that the stewardship ethic of the individual operator is a significant factor in soil conservation. The fact of foreclosure may have little or no bearing on specific farm practices, depending on the knowledge and attitude of the operator.

4. In this study, the issues of farmland ownership and soil conservation were explored by analyzing the effect of foreclosure on the land--soil and water quality; and on people--individual farmers and the larger agricultural community.

5. Resolution to the issues of soil loss and farmland management may be found in legislation and education. This should result in improved corporate policy to better conserve farmland; and more cohesive public policy to provide full opportunities for people to farm using wise stewardship.

6. Further research is recommended:

   - The role of farm management companies should be targeted in a study of new ownership patterns.
   - The phenomenon of buying up farmland by individuals or family farm partnerships is noticeable in all four counties. Stewardship of these large operations should be targeted for study.
   - Federal agricultural assistance programs should be evaluated for their effectiveness in directing land stewardship practices. The dollar value of a particular crop program or set-aside program may persuade an operator to plant a certain crop rotation that may counter traditional learned stewardship practices.
   - The availability of farmer education and support services should be evaluated, including demonstration projects of ecological farm practices.

APPENDIX A

Table A.1. FORECLOSED ACREAGES BY COUNTY (DECEMBER 1986): GOODHUE COUNTY

Farms Reviewed	Foreclosed by	Acreage	Date Acquired
1. B. Tipcke*	John Hancock	613	1984
2. M. Holst*	John Hancock	240	1986
3. M. Ronnigen	Metropolitan	424	1986
4. C. Nord	Travellers	400	1986
5. A. Brekken	Travellers	120	1985
6. E. Hallanger	John Hancock	114	1986
7. B. Olson	Federal Land Bank	220	1986
8. D. Kirtz	Federal Land Bank	440	1984
9. D. Kehren	Federal Land Bank	160	1986
10. Hader Farms	Federal Land Bank	405	1986
11. B. Richardson	Federal Land Bank	320	1986
12. H. Fogelson	Federal Land Bank	288	1986
13. D. Balow	Federal Land Bank	240	1986

*USLE calculation.

Table A.2. FORECLOSED ACREAGES BY COUNTY (DECEMBER 1986): FILLMORE COUNTY

Farms Reviewed	Foreclosed by	Acreage	Date Acquired
1. J. McGill	Travelers	160	1985
2. H. & D. Housker	John Hancock	120	1986
3. V. Moeller (Bolder Front Farm)	John Hancock	155	1984
4. G. Heidtke	Mutual Life	158	1983
5. W. Graves & E. Erickson	Metropolitan	403	1984
6. L. Drinkall (S. Crouch)*	Metropolitan	260	1985
7. Keim Farms (L. Tart)	Metropolitan	380	1984
8. A. Meldahl	Metropolitan	172	1984
9. M. Oster	Connecticut General	592	1986
10. Kennedy Brothers	Federal Land Bank	792	1985
11. O. Holtegard	Federal Land Bank	240	1985
12. R. Albrecht	Federal Land Bank	94	1985
13. Selness Farms (D. Crouch)	Federal Land Bank	140	--
14. D. Brock*	Federal Land Bank	282	1986
15. H. Wilkinson (Flaa)	Federal Land Bank	75	1985
16. J. Kinneberg (R. Stensgard)	Federal Land Bank	307	1985

*USLE calculation.

Table A.3. FORECLOSED ACREAGES BY COUNTY (DECEMBER 1986): MOWER COUNTY

Farms Reviewed	Foreclosed by	Acreage	Date Acquired
1. A. Jovaag (M. Bustad)*	Connecticut General	440	1985
2. C. Clement*	Connecticut General	485	1985
3. K. & T. Reinsch (J. Block)	Connecticut General	640	1985
4. D. Oliver (T. Olbrich)	John Hancock	478	1985
5. R. Lee	Metropolitan	160	1986
6. D. & E. Ulland	Metropolitan	117	1986
7. J. Moeller	Prudential	160	1986
8. M. & M. Farms (J. Matern)	Prudential	321	1986
9. Thoen Brothers	Prudential	866	1986
10. J. Kiser (C. Burke)	John Hancock	77	1986
11. L. Lenth (D. Durst)	Federal Land Bank	271(?)	1984
12. J. Marr	Federal Land Bank	40	1985
13. J. Steele (A. Schammel)	Federal Land Bank	230	1984
14. H. Jensen	Federal Land Bank	--	1984

*USLE calculation.

Table A.4. FORECLOSED ACREAGES BY COUNTY (DECEMBER 1986): OLMSTED COUNTY

Farms Reviewed	Foreclosed by	Acreage	Date Acquired
1. C. Franke*	Metropolitan	87	1986
2. B. DeCook (H. DeCook)	Travellers	238	1986
3. S. Trogstad (R. VonWald)	Metropolitan	102	1986
4. L. DeCook (A. Pehl)	John Hancock	142	1986
5. H. Searles	John Hancock	586	1985
6. Penz Farms	John Hancock	1,509	1986
7. G. King (P. Suess)*	Federal Land Bank	133	1986
8. G. Tesmer	Federal Land Bank	239	1986

*USLE calculation.

APPENDIX B

UNIVERSAL SOIL LOSS EQUATION (USLE) FOR SELECTED REVIEW FARMS

The following USLE calculations assume the highest (C) value, i.e., the worst-case scenario, where farmer is fall-plowing, causing potentially the greatest soil erosion. Calculations are for those parcels of foreclosed acreage showing greatest change in crop pattern.

1. Tipcke farm (foreclosed 1984)

For Goodhue County, Belvidere Township, Section 11, NW corner, with SfC2 soil (Seaton silt loam, eroded):

Changes in crop mix evident over 1980-85 period; soybeans introduced 1984, year of foreclosure; more acreage in single crop (corn); less strip-cropping.

T = 4, where (T) represents tolerable soil loss per acre per year; and

a) a crop rotation (1982-87) of C-C-C-C-C-C:

A = RKLSCP
A = (150)(.37)(1.2)(.36)(.5)
A = 11.9

b) a crop rotation of H-C-C-C-C-W:

A = (150)(.37)(1.2)(.305)(.5)
A = 10.16

c) with SfD2 soil, and T = 5, with a crop rotation of C-C-C-W-C-W:

A = 30.5

2. Holst farm (foreclosed 1986)

For Goodhue County, Belvidere Township, Section 31, Field 3, with SfC2 soil (Seaton silt loam, eroded):

More varied cash crops evident, i.e. peas and beans in addition to corn.

T = 4; and

a) a crop rotation (1983-87) of C-C-C-C-P:

A = RKLSCP, where (C) value is for spring plowing
A = (150)(.37)(1.2)(.5)(.376)
A = 12.52

b) a crop rotation of H-H-H-B-P:

A = (150)(.370(1.2)(.91)(.5)
A = 30.3

3. S.C. Crouch farm (foreclosed 1985)

More intensive corn cropping appears pre-foreclosure. Corn remains the main crop post-foreclosure, with more acreage to set-aside.

a) For Fillmore County, Preble Township, Section 17, for field with Ff soil (Fayette silt loam, highly eroded, 12-17% slope):

T = 5, and crop rotation (1982-87) is:

82-83-84-85-86-87
C--H--C--O--C--H

A = (150)(.37)(3.24)(.34)(1.0) = 61.14 tons per acre

b) For Section 17, field with Fd soil (Fayette silt loam, eroded, 7-11% slope):

T = 5, and crop totation (1982-87) is:

82-83-84-85-86-87
H--C--C--C--H--C

A = (150)(.37)(1.49)(.41)(.7) = 23.73 tons per acre

4. A. Sovaag (former M. Bustad) farm (foreclosed 1985)

For Mower County, Austin Township, Section 34, for field with 244c soil (Lilah):

More intensive cash crops evident following foreclosure; corn replaces set-aside on this highly erodible soil.

T = 3, and crop rotation (1983-87) is:

83-84-85-86-87
SA-SA-SA--C--C

A = (150)(.2)(2.0)(.11)(1.0) = 6.6 tons per acre

5. T. Clement farm (foreclosed 1985)

For Mower County, Grand Meadow Township, Section 24, for field with 63A soil (Protivin):

T = 5, and crop rotation (1982-87 is):

82-83-84-85-86-87
SB--H--O--C-SA-SB

A = (150)(.28)(.70)(.32)(1.0) = 9.41 tons per acre

No ASCS program crops year before foreclosure; appears modified corn/soybean rotation introduced beginning 1985, suggesting intensified cropping practice.

6. G. King (former P. Suess) farm (foreclosed 1986)

For Olmsted County, Rock Dell Township, Sections 21 & 22, for fields 1, 2, & 3 with 30B (Kenyon loam, 1-6%):

Changes in crop mixture evident over 1981-86 period, with soybeans introduced in 1985, year prior to foreclosure; overall concentration of corn, with evidence of increased acreage in small grains and set-aside.

T = 5, and crop rotation (1982-86) is:

	82-83-84-85-86
field 1	-C--C--O--C--O
field 2	-C-SA--C--O--C
field 3	-C SA--C-SB--C

field 1 A = (150)(.28)(.53)(.29)(1.0) = 6.45 tons per acre
field 2 A = (150)(.28)(.53)(.22)(1.0) = 4.89 tons per acre
field 3 A = (150)(.28)(.53)(.27)(1.0) = 6.01 tons per acre

In all instances, annual soil loss would be halved by practicing contour tillage.

7. C. Francke farm (foreclosed 1986)

For Olmsted County, Dover Township, Section 19, for field 10 with 99B soil (Racine silt loam, 1-6%):

Greater crop diversification is evident over 1982-87 period, with more acreage in set-aside; intensive row cropping of corn maintained.

T = 5 and crop rotation (1982-87) is:

82-83-84-85-86-87
-C--H--C--C--C--C

A = (150)(.32)(.49)(.42)(1.0) = 9.78 tons per acre assuming support practice (p=1.0) is straight up and down strip-cropping

A = (150)(.32)(.49)(.42)(.5) = 4.93 tons per acre assuming support practice (p=.5) is contour tillage

Soil loss would be brought under (T) by introduction of contour tillage, but row cropping continues on this field following foreclosure.

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